

Figure 1.

1 ILKQSERRRRSWSYRPWNTTENEGSQHRRSICSLGARSQSASINGWTEGNYNYIIEDED kv10.1.PRC  
1 HT-----KHGSRSTSSLPF----- hKv2.1.PRC  
1 HAE-----KAPPGLNRKTSRSTLSLPF----- hKv2.2.PRC

61 GEEEDQWKDOLAEEDQOAGEVTTAKPEGPSDPPALLSTLNVHVGGHSYQLDYCELAGFEEK kv10.1.PRC  
15 -----EPMEIVRSKACSR-----VRLHVGGLAHEVLCWRTLDRLPR hKv2.1.PRC  
23 -----EPVDIIRSKTCSR-----VKIHVGGLNHEVLCWRTLDRLPR hKv2.2.PRC

121 TRLGRLATSTSRSRQLSLCDDYEEQTD EYFFDRDP AVFQLVYNEZLSGVLLVL DGLCPRR kv10.1.PRC  
51 TRLGKLRDCNTHDSLLEVCDDYSLD DNEYFFDRHPGAFSTILNPFYRTGRLHHHEEHCALS hKv2.1.PRC  
59 TRLGKLRDCNTHESLLEVCDDVNLNEUEYFFDRHPGAFSTILNPFYRTGRLHHHEEHCALS hKv2.2.PRC

181 FLRELGVWGVRLKYZTPRCCRICPSEERDELSERLKIQHELRAQAQVEEAELFRDMRFYG kv10.1.PRC  
111 FSQELDYWGIDEIYVLESCCQARYHQKKEQHNEELRREAETLPEREGEE-----S-DNTCCA hKv2.1.PRC  
119 FSQELDYWGIDEIYVLESCCQARYHQKKEQHNEELRREAETMRDGE GEE-----S-DNTCCP hKv2.2.PRC

241 PQRRLWNLMEKPPSSVAAKAIGVASSTFVLVSVVALALNTVEEMQHSQGQEGGPDLRP kv10.1.PRC  
166 EKRKKLWDLLEKPNSSVAAKILAIISIMFIVLSTIALSLNTLPELQSLDEFGQSTDN-----P hKv2.1.PRC  
174 DKRKKLWDLLEKPNSSVAAKILAIIVSILFIVLSTIALSLNTLPELQETDEFGQLNDN-----R hKv2.2.PRC

301 ILEHVEMLCMGFFTLEYLLRLASTPDLRRFARSALNLV DLVAILFLYLQLLLECF TGECH kv10.1.PRC  
224 QLAHVEAVCIAWFTMEYLLRFLSSPKKWKFFKGPLNAIDLLAILPYVVTIFLT----- hKv2.1.PRC  
232 QLAHVEAVCIAWFTMEYLLRFLSSPNKWKFFKGPLNVIDLLAILPYVVTIFLT----- hKv2.2.PRC

361 QRGQTVGSVGVKVGQVLRVMRLHRIFRILKLARHSTGLRAFUGFTLQCYQQVGCCLLFLIAH kv10.1.PRC  
277 ESNKSVLQFQNVRRVVGQIFRIHRLIRILKLARHSTGLQSLGFTLRRSYNELGLLILFLAH hKv2.1.PRC  
285 ESNKSVLQFQNVRRVVGQIPRIMRILIRILKLARHSTGLQSLGFTLRRSYNELGLLILFLAH hKv2.2.PRC

421 GIPTFSAAVYSVEHDPVSTNFTTIPHSMHAAVSIISTVGYGDHYPETHLGRFFAFLCIAF kv10.1.PRC  
337 GIHIFSSLVFFAENDEDDTKFKSIPASFWATITHTTVGYGDIYPKTL LKNI VGGLC CIA hKv2.1.PRC  
345 GIHIFSSLVFFAEDDA TKFTSIPASFWATITHTTVGYGDIYPKTL LKNI VGGLC CIA hKv2.2.PRC

481 GIILNGMFIISILYJKFSDYSKLKALEYTTIRRE-----RGEVNFHQ-----RARKKIAEC kv10.1.PRC  
397 GVLVIALPIPIIVNNMFSEFYKEQKQEKAKKRREALERAKNRNGSIVSHHMKDAFARSHIEM hKv2.1.PRC  
405 GVLVIALPIPIIVNNMFSEFYKEQKQEKAKKRREALERAKNRNGSIVSHHMKDAFARSHIEL hKv2.2.PRC

532 LL-----GSMNPOLTPTPR-GEN. kv10.1.PRC  
457 HDIVVEKNNGENMGKRDKVQDNHLSFNKWKHTKRTLSETSSSKSFETKEQGSPENARS----- hKv2.1.PRC  
465 IOVAVEKAGESANTKDSADDNHLSFSRHWKARKALSETSSNKSFENKYQEV SQKDSHEQL hKv2.2.PRC

546 kv10.1.PRC  
514 -----SSSPQHNLNVQQL EDMYNKMAKTQ-----SQPILNTRKESAAQSKP-KEELEHESIPSPVA hKv2.1.PRC  
525 NNTFSSSPQHLSAQKLEHLYNEITKTQPHSHBNPDCQEKPERPSAYEBEEIENEDEVVC PQE hKv2.2.PRC

546 kv10.1.PRC  
567 PLP-TRTEGVIDURSHSSIOSFISCATDFPEATRFSHSP L TSLP SKTGGSTAPEVGWRGA hKv2.1.PRC  
585 QLAVAQTEVIVDHKSTSSIOSFTSCATDFTEETER-----SPLP PPSASHLQM----- hKv2.2.PRC

546 kv10.1.PRC  
626 LGASGGRFVEANFSPDASQHSSFFIESPKSSMKTNNPLKLRALKVNFHEGDPSP L L PVLG hKv2.1.PRC  
632 -----KFP TDLPGTEEHQRAR-----GPPFLT L SREKGPAA RDGTLEYAPVDITVNL D AS G hKv2.2.PRC

546 kv10.1.PRC  
686 H-----YHOF L RNRGSAAA AVAGLECATL LDKAVLSPESSIYTTASAKTPPRSPEKHTAIAF hKv2.1.PRC  
683 SQCG LHSPL OSONATOSP KSS LKGSNPLKSRSLKVNFKENRGSA PQTPPSTARPLPVTTA hKv2.2.PRC

546 kv10.1.PRC  
743 NFEAGVHQYI OADTDDEGOLLYSVDSSPPKSLPGSTSPKFSTGT RSEKNHFESSPLPTS P hKv2.1.PRC  
743 D FSLTTPQHIST-----ILL-----EETPSQGD R PCWALR P QRLV RDL-----PKGCP P hKv2.2.PRC

546 kv10.1.PRC  
803 KFLRQNCIYS TEALTGKGPSGQEKCKLENHISP D VRVLP GGGAHGSTRDQSI hKv2.1.PRC  
787 GFPSRNC SL-----LQERGCASLK hKv2.2.PRC

Figure 2.

472	F	F	A	F	L	C	I	A	F	G	I	L	N	G	M	P	I	S	I	L	Y	N	K	F	S	Kv10.1	
439	V	V	A	L	S	S	I	L	S	G	I	L	L	M	A	F	P	V	T	S	I	F	H	T	F	S	Kv6.1
388	I	V	G	G	L	C	C	I	A	G	V	L	V	I	A	L	P	I	P	I	I	V	N	N	F	S	Kv2.1

Figure 3

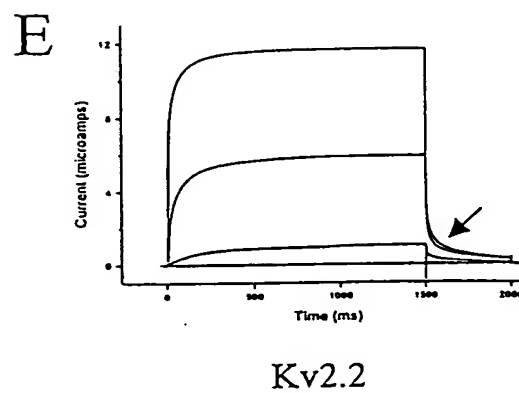
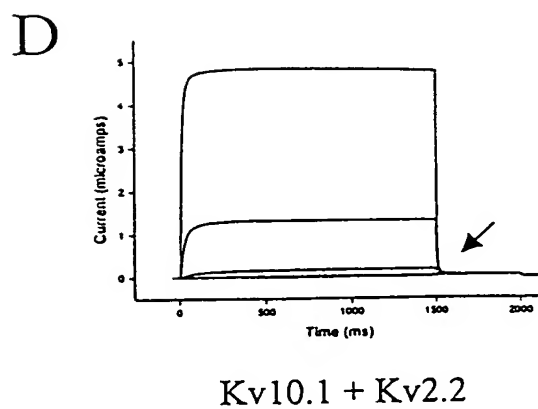
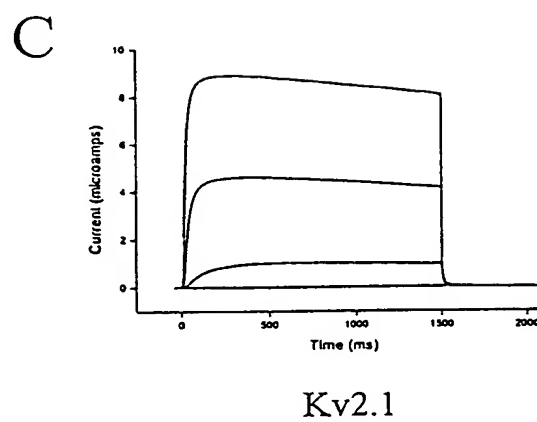
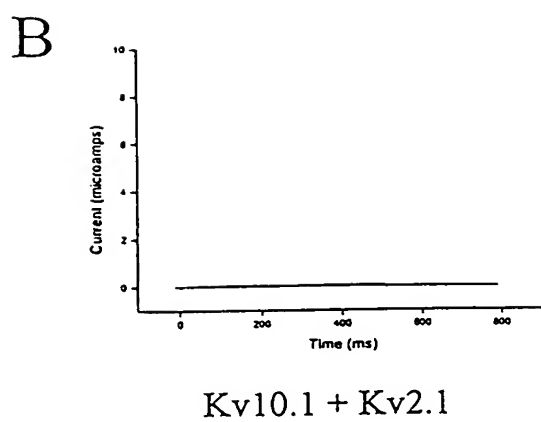
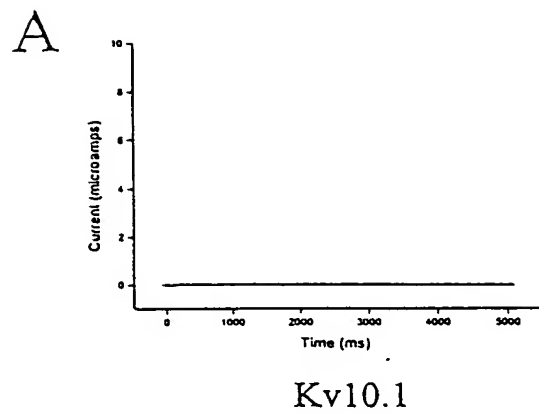
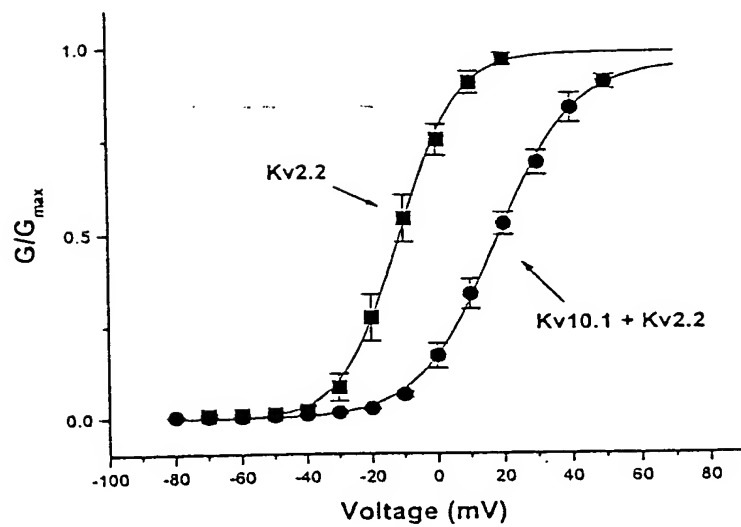
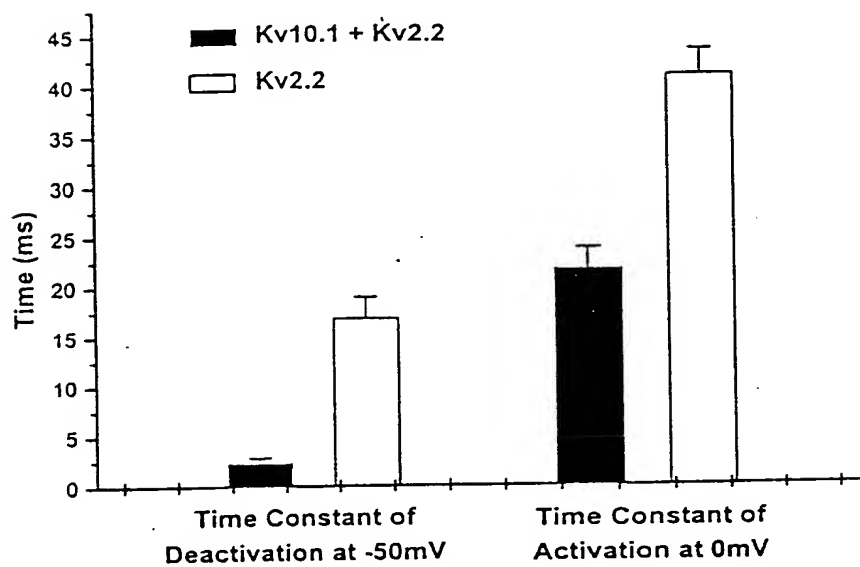


Figure 4

A.



B.



Kv10.1 mRNA

TR= Trace levels

- |     |                  |
|-----|------------------|
| TR  | Whole Brain      |
| •   | Fetal Brain      |
| •   | Trigeminal       |
| •   | DRG              |
| TR  | Frontal cortex   |
| •   | Hippocampus      |
| +   | Spinal cord      |
| +   | Substantia Nigra |
| •   | Hypothalamus     |
| •   | Cerebellum       |
| •   | Kidney           |
| •   | Heart            |
| +++ | Testis           |
| •   | Spleen           |
| •   | Pancreas         |
| •   | Bladder          |
| +   | Prostate         |
| •   | Liver            |
| •   | Skeletal Muscle  |
| •   | Placenta         |
| •   | Colon            |
| +   | Retina           |

Figure 5